BIOGRAPHICAL SKETCH

NAME: Gary E. Hatch **POSITION TITLE**: Pharmacologist

EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
B.Y.U., Provo, Utah	B.S.	1972	Microbiology
B.Y.U., Provo, Utah	M.S.	1974	Biochemistry
Univ. of Utah, Salt Lake City, Utah	Ph.D.	1977	Pharmacology
Duke University, Durham, N.C.	Post Doc	1979	Toxicology

PROFESSIONAL EXPERIENCE:

Aug 1979 - present: Pharmacologist, Leader of the Biochemical Toxicology Group, Pulmonary Toxicology Branch, Experimental Toxicology Division, National Health and Environmental Effects Research Laboratory, U.S. E.P.A., Res. Tri. Park, NC.

Jan 1977-Jul 1979: Postdoctoral Research Associate, Depts. of Pharmacology and Medicine, Duke University Medical Center, Durham, NC.

PROFESSIONAL SOCIETIES:

American Society for Pharmacology and Experimental Therapeutics
Society of Toxicology
The Oxygen Society
North Carolina Chapter of the Society of Toxicology

SELECTED AWARDS AND HONORS:

Recipient of five E.P.A. Scientific and Technology Achievement Awards (all are level 3)

INVITED LECTURES / SYMPOSIA:

1998 - 2003: Five additional invited lectures to a variety of groups/ organizations.
2/2000: "Pulmonary Effects of PM: Sensory Irritation, Susceptibility to Infection and Oxidative Stress" Tsukuba, Japan.
5/2002: Cincinnatti, Ohio. Tri-Service Toxicology Conference and Isotec, Inc. "Phosgene as an example of the C x T principle: The role of adaptation" and "Environmental Research Utilizing Oxygen-18."
2/2003: Washington, D.C., "E.P.A. Studies and Research Needs in Bioterrorism." American Thoracic Society.
4/2003: Society of Toxicology symposium: "Use of oxygen-18 for detection of oxidative stress."

ASSISTANCE/ LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

1998-2003: Planning committee for NIEHS/ EPA multi-laboratory study on "Biomarkers of Oxidative Stress"
1998-2000: Society of Toxicology working group for comparison of intratracheal instillation and inhalation methods
9/1999: Reviewer of NIOSH program project: "Oxidant Injury to the Respiratory Tract."
6/2001: WHO/ IPCS Review of Acrolein Document
3/ 2003: Co-organizer of NIEHS-EPA Rfp workshop: "Antioxidants, Diets and Environmental Influences."
5/2002: E.P.A. / Industry working group on ozonation of water and bromate mode of action.
3/2003: Working group member: American Thoracic Society task force on Bioterrorism.

ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:

1998-2002: NHEERL Committee for Research Strategy and Implementation: Particulate Matter
2001-2003: NHEERL Committee for Research Strategy and Implementation: Air Toxics
1998-2003: NHEERL Committee for Research Strategy and Implementation: Human Health
2002: Assistance to Water Program: Bromate Mode of Action workshop.
2003: Assistance to NCEA: Program for high metabolic activity susceptibility studies of ambient air pollution

2002-2003: NHEERL lead for new Homeland Security Research initiatives.

RECENT PUBLICATIONS: (Since January 1, 1998, out of a total of 84)

1. Ghio, A.J., Kennedy, T.P., Crissman, K.M., Richards, J.H., and Hatch, G.E. 1998. Depletion of iron and ascorbate in rodents diminishes lung injury after silica. Exper. Lung. Res. 24:219-232.
2. Plopper, CG, Hatch, G.E., Wong, V., Duan, X., Weir, A.J., Tarkington, B.K., Devlin, R.B., Becker, S., and Buckpitt, A.R. 1998. Relationship of inhaled ozone concentration to acute tracheobronchial epithelial injury, site-specific ozone dose and glutathione depletion in rhesus monkeys. Amer. J. Respir Cell and Mol. Biol. 19:387-399.
3. Gunnison, A.F. and Hatch, G.E. 1999. Ozone induced inflammation in prepregnant, pregnant, and lactating rats correlates with ozone dose estimated by oxygen-18. Am. J. Physiol. (Lung Cell. Mol. Physiol. 20): L332-L340.
4. Kodavanti, U.P., Schladweiler, M.C., Ledgetter, A.D., Watkinson, W.P. Campen, M.J., Winsett, D.W., Richards, J.R., Crissman, K.M., Hatch, G.E., and Costa, D.L. 2000. The spontaneously hypertensive rat as a model of human cardiovascular disease: Evidence of exacerbated cardiopulmonary injury and oxidative stress from inhaled emission particulate matter. Toxicology and Appl. Pharmacology 164: 250-263.
5. Kadiiska, M.B., Gladen, B.C., Baird, D.D., Dikalova, A.N. Sohol, R.S., Hatch, G.E., Jones, D.P., Mason, R.P., and Barrett, J.C. 2000. Biomarkers of oxidative Stress Study: Are plasma antioxidants markers of CCl4 poisoning? Free Radical Biology and Medicine 28: 838-45.
6. Campen, M.J., Norwood, J. McKee, J.L, Mebane, R., Hatch, G.E., Watkinson, W.P. 2000. Ozone-induced hypothermia and bradycardia in rats and guinea pigs in nose-only or whole-body inhalation systems. J. Thermal Biol. 25:81-89
7. Madden, M.C., Richards, J.H., Dailey, L..A., Hatch, G.E., and Ghio, A.J. 2000. Effect of ozone on diesel exhaust particle toxicity in rat lung. Toxicol. And Appl. Pharm. 168: 140-148..
8. Slezak, B.P., Hatch, G.E., Devito, M.J., Slade, R., Crissman, K., Birnbaum, L.S. 2000. Oxidative stress in female B6C3F1 mice following acute and subchronic exposure to 2,3,7,8-tetrachlorobdibenzo-p dioxin (TCDD). Toxicological Sciences 54: 390-8.
9. Kodavanti, U.P., Schladweiler, M.C., Ledgetter, A.D., Watkinson, W.P. Campen, M.J., Winsett, D.W., Richards, J.R., Crissman, K.M., Hatch, G.E., and Costa, D.L. 2000. The spontaneously hypertensive rat as a model of human cardiovascular disease: Evidence of exacerbated cardiopulmonary injury and oxidative stress from inhaled emission particulate matter. Toxicology and Appl. Pharmacology 164: 250-263.
10. Driscoll, K.E., Costa, D.L., Hatch, G.E., Henderson, R., Oberdorster, G., Salem, H., and Schlesinger, R.B. 2000. Intratracheal instillation as an exposure technique for the evaluation of respiratory tract toxicity: Uses and limitations. Toxicological Sciences 55: 24-35.
11. Norwood, J.Jr., Ledbetter, A.D., Doerfler, D.L, and Hatch, G.E. 2001. Residual oil fly ash inhalation in guinea pigs: Influence of ascorbate and glutathione depletion. Toxicological Sciences 61: 144-153.
12. Samet, J.M., Hatch, G.E., Horstman, D., Steck, S.E., Arab, L., Bromberg, P.A., Levine, M., McDonnell, W.F., and Devlin, R.B. 2001. Effect of antioxidant supplementation on ozone-induced lung injury in human subjects. Am. J. Respir. Crit. Care Med. Sep 1;164(5):819-825.
13. Sun, G., Crissman, K., Norwood, J., Richards, J., Slade, R., and Hatch, G.E. 2001. Oxidative interactions of synthetic lung epithelial lining fluid with metal-containing particulate matter. Am. J. Physiol Lung Cell Mol. Physiol 281: L807-15.
14. Hatch, G.E., Kodavanti, U., Crissman, K., Slade, R., and Costa, D. 2001. An “injury-time integral” model for extrapolating from acute to chronic effects of phosgene. Toxicology and Industrial Health. 17: 285-293.
15. Romieu, I., Sienra-Monge, J.J, Ramirez-Aguilar, M., Tellez-Rojo, M.M., Moreno-Macias, H., Reyes-Ruiz, N.I., Rio-Navarro, B.E., Ruiz-Navarro, X.M., Hatch, G.E., Slade, R., Hernandez-Avila, M. 2002. Antioxidant supplementation and lung functions among asthmatic children exposed to high levels of air pollutants. Am. J. Respir. Crit. Care Med. 166: 703-709.
16. Kongerud, J., Crissman, K., Hatch, G.E., Alexis, N. 2003. Ascorbic acid is decreased in induced sputum of mild asthmatics. Respiratory Research, 15:101-109.
17. Singh, P., Daniels, M, Winsett, D.W., Richards, J., Doerfler, D., Hatch, G.E., Adler, K.B.,and Gilmour, M.I. 2003. Phenotypic comparison of allergic airway responses to house dust mite in three rat strains. Am J Physiol Lung Cell Mol Physiol 284: L588-L598.